

RE: J1220-5727

Weaver / 70 Thomas Farm / Harnett

Trenco 818 Soundside Rd Edenton, NC 27932

Site Information:

Customer: Project Name: J1220-5727

Lot/Block: Model:
Address: Subdivision:
City: State:

### General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.3

Wind Code: N/A Wind Speed: N/A mph Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 12 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E14688955	F1	12/24/2020
2	E14688956	F2	12/24/2020
3	E14688957	F2A	12/24/2020
4	E14688958	F3	12/24/2020
5	E14688959	F4	12/24/2020
6	E14688960	F5	12/24/2020
7	E14688961	F6	12/24/2020
8	E14688962	F6A	12/24/2020
9	E14688963	KW1	12/24/2020
10	E14688964	KW2	12/24/2020
11	E14688965	KW4	12/24/2020
12	E14688966	KW6	12/24/2020

The truss drawing(s) referenced above have been prepared by

Truss Engineering Co. under my direct supervision

based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2020

North Carolina COA: C-0844

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.



December 24, 2020

Job	Truss	Truss Type	Qty	Ply	Weaver / 70 Thomas Farm / Harnett
					E14688955
J1220-5727	F1	Floor	6	1	Job Reference (optional)

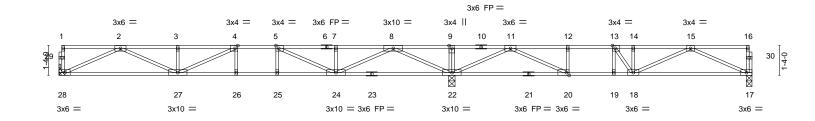
8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:42:53 2020 Page 1 ID:lwPOH6hK8Jeptt6SXqQOJcyzm6C-OuUKnaUVwqyrut\_ljLm3h0QKfAsUF3bCCrD9zDysWP0

0-1-8



1-11-4 0-9-0

0-1-8 Scale = 1:51.6



		17-7-0	6-7-14		1-4-14	5-4-8	7		
Plate Offs	sets (X,Y)	[4:0-1-8,Edge], [5:0-1-8,Edge], [13:0-1	8,Edge], [20:0-1-8,Edge]						
LOADING	<b>G</b> (psf) 40.0	<b>SPACING-</b> 2-0-0 Plate Grip DOL 1.00	CSI. TC 0.70	DEFL. Vert(LL)	in (loc) I/defl -0.23 26-27 >924	L/d 480	PLA MT2	ATES GRIP 20 244/190	
TCDL BCLL	10.0	Lumber DOL 1.00 Rep Stress Incr YES	BC 0.88 WB 0.74	Vert(CT) Horz(CT)	-0.31 26-27 >687 0.05 17 n/a	360 n/a		211,100	
BCDL	5.0	Code IRC2015/TPI2014	Matrix-S	, ,			Wei	ght: 155 lb FT = 20%F	F, 11%E

LUMBER-TOP CHORD

2x4 SP No 1(flat) 2x4 SP No.1(flat)

BOT CHORD WFBS 2x4 SP No.3(flat) **BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

25-7-12

31-0-4

except end verticals.

24-2-14

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

BOT CHORD

(size) 28=Mechanical, 17=0-3-0, 22=0-3-8

Max Grav 28=857(LC 10), 17=649(LC 4), 22=1975(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD

2-3=-2551/0, 3-4=-2551/0, 4-5=-2752/0, 5-7=-1952/0, 7-8=-1952/0, 8-9=0/1763,

17-7-0

9-11=0/1763, 11-12=-1513/236, 12-13=-1513/236, 13-14=-1640/0, 14-15=-1640/0 27-28=0/1593, 26-27=0/2752, 25-26=0/2752, 24-25=0/2752, 22-24=-247/607,

20-22=-796/633, 19-20=-236/1513, 18-19=-236/1513, 17-18=0/1149

 $9-22 = -294/0, \ 2-28 = -1748/0, \ 2-27 = 0/1059, \ 3-27 = -321/0, \ 4-27 = -412/187, \ 8-22 = -2191/0, \ 8-22 = -2191/0, \ 8-22 =$ WFBS

 $8-24=0/1551,\, 7-24=-279/10,\, 5-24=-1064/0,\, 15-17=-1259/0,\, 15-18=-57/544,\,$ 

14-18=-383/0, 11-22=-1732/0, 11-20=0/1235, 12-20=-392/0, 13-18=0/651, 13-19=-319/0

### NOTES-

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 1.5x3 MT20 unless otherwise indicated.
- 3) Plates checked for a plus or minus 1 degree rotation about its center.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.



July 31,2020

Job	Truss	Truss Type	Qty	Ply	Weaver / 70 Thomas Farm / Harnett	
					E14	1688956
J1220-5727	F2	Floor	5	1	11.57	
J1220-5727	F2	Floor	5	1	Job Reference (optional)	

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:42:55 2020 Page 1 ID:IwPOH6hK8Jeptt6SXqQOJcyzm6C-LGc4CFVISRCZ7B87qmoXmRVihzYej?2Vg9iG26ysWP\_

0-1-8 2-6-0 HF

1-10-0

0-1-8 Scale = 1:29.3

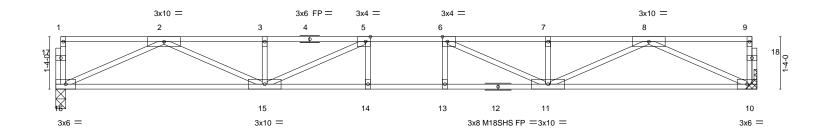


	Plate Offsets (X,Y) [5:0-1-8,Edge] [6:0-1-8,Edge]									
Plate Offsets (X,Y)										
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP						
TCLL 40.0	Plate Grip DOL 1.00	TC 0.54	Vert(LL) -0.24 14-15 >875 480	MT20 244/190						
TCDL 10.0	Lumber DOL 1.00	BC 0.84	Vert(CT) -0.33 13-14 >649 360	M18SHS 244/190						
BCLL 0.0	Rep Stress Incr YES	WB 0.61	Horz(CT) 0.06 10 n/a n/a							
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 89 lb FT = 20%F, 11%E						

17-10-0

LUMBER-

TOP CHORD 2x4 SP No.1(flat) 2x4 SP No.1(flat)

**WEBS** 2x4 SP No.3(flat)

BOT CHORD

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 16=0-3-0, 10=Mechanical

Max Grav 16=961(LC 1), 10=961(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 2-3=-2980/0, 3-5=-2980/0, 5-6=-3497/0, 6-7=-2980/0, 7-8=-2980/0 TOP CHORD **BOT CHORD** 15-16=0/1818, 14-15=0/3497, 13-14=0/3497, 11-13=0/3497, 10-11=0/1818 **WEBS** 2-16=-1995/0, 2-15=0/1285, 3-15=-302/0, 5-15=-833/0, 8-10=-1995/0, 8-11=0/1285,

7-11=-302/0, 6-11=-833/0

### NOTES-

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All plates are 1.5x3 MT20 unless otherwise indicated.
- 4) Plates checked for a plus or minus 1 degree rotation about its center.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



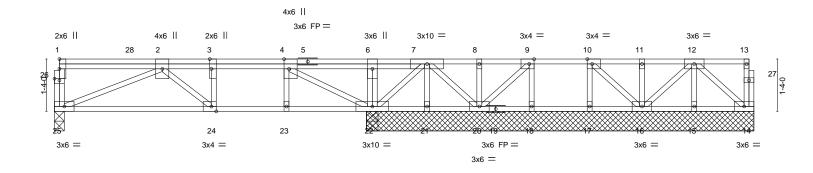


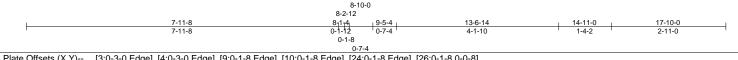
Job	Truss	Truss Type	Qty	Ply	Weaver / 70 Thomas Farm / Harnett	
J1220-5727	F2A	Floor Girder	_			E14688957
31220-5727	rza	Floor Gilder		'	Joh Reference (entional)	

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:42:56 2020 Page 1 ID:lwPOH6hK8Jeptt6SXqQOJcyzm6C-pTASPbWNDlLQlLjJOTJmJf2zrN1ESWjeupSqZYysWOz

0-1-8







1 late On	30t3 (A, 1)	[0.0 0 0,Euge], [4.0 0 0,Euge], [0.0 1 0	-+.0 1 0,Eugoj, [20.0 1 0,0 0 0]		
LOADING	G (psf)	SPACING- 2-0-0	CSI.	<b>DEFL.</b> in (loc) I/defl L/d	PLATES GRIP
TCLL	40.0	Plate Grip DOL 1.00	TC 0.19	Vert(LL) -0.04 24-25 >999 480	MT20 244/190
TCDL	10.0	Lumber DOL 1.00	BC 0.30	Vert(CT) -0.06 24-25 >999 360	
BCLL	0.0	Rep Stress Incr NO	WB 0.33	Horz(CT) 0.01 22 n/a n/a	
BCDL	5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 112 lb FT = 20%F, 11%E

LUMBER-

TOP CHORD 2x4 SP No 1(flat) **BOT CHORD** 2x4 SP No.1(flat)

WFBS 2x4 SP No.3(flat) **BRACING-**TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

except end verticals.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 9-10-8 except (jt=length) 25=0-3-0.

(lb) -Max Uplift All uplift 100 lb or less at joint(s) 21

Max Grav All reactions 250 lb or less at joint(s) 14, 21, 20, 18, 15, 16, 17 except 22=898(LC 1), 22=898(LC 1), 25=553(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-945/0 3-4=-945/0 4-6=0/251 **BOT CHORD** 24-25=0/945, 23-24=0/945, 22-23=0/945

WFBS 2-25=-1024/0. 4-22=-1304/0

### NOTES-

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 1.5x3 MT20 unless otherwise indicated.
- 3) Plates checked for a plus or minus 1 degree rotation about its center.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 21.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 153 lb down at 1-11-12, and 153 lb down at 3-11-12, and 309 lb down at 5-11-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (plf)

Vert: 14-25=-10, 1-13=-100 Concentrated Loads (lb)

Vert: 4=-229(F) 3=-73(F) 28=-73(F)



July 31,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

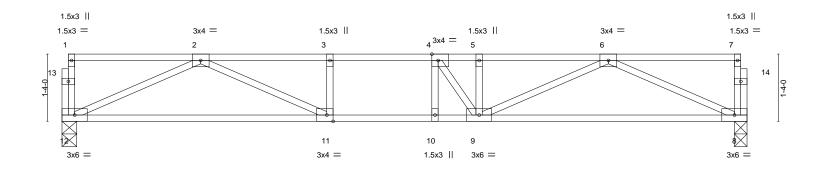
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	Weaver / 70 Thomas Farm / Harnett	
					E14688958	
J1220-5727	F3	Floor	2	1		
					Job Reference (optional)	
Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:42:57 2020 Page 1						

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0-1-8 → <del>| 0-9-0</del> 2-6-0 1-11-8  $0_{1}$  8 Scale = 1:22.8 H +



	13-7-0	
-	13-7-0	

Plate Off	sets (X,Y)	[4:0-1-8,Edge], [11:0-1-8	,Edge]			_					_	
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.39	Vert(LL)	-0.12	9-10	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.65	Vert(CT)	-0.18 1	1-12	>898	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.03	8	n/a	n/a		
BCDL	5.0	Code IRC2015/TF	PI2014	Matrix	-S	' '					Weight: 69 lb	FT = 20%F, 11%E

BOT CHORD

LUMBER-**BRACING-**TOP CHORD

2x4 SP No.1(flat) TOP CHORD BOT CHORD 2x4 SP No.1(flat)

2x4 SP No.3(flat) WFBS

REACTIONS. (size) 12=0-3-8, 8=0-3-0 Max Grav 12=727(LC 1), 8=727(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

2-3=-1986/0, 3-4=-1986/0, 4-5=-1966/0, 5-6=-1966/0 TOP CHORD

**BOT CHORD** 11-12=0/1315, 10-11=0/1986, 9-10=0/1986, 8-9=0/1318

**WEBS** 6-8=-1445/0, 6-9=0/716, 5-9=-263/76, 4-9=-385/240, 2-12=-1442/0, 2-11=0/793

### NOTES-

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Plates checked for a plus or minus 1 degree rotation about its center.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



Structural wood sheathing directly applied or 6-0-0 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chorembers only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road Edenton, NC 27932

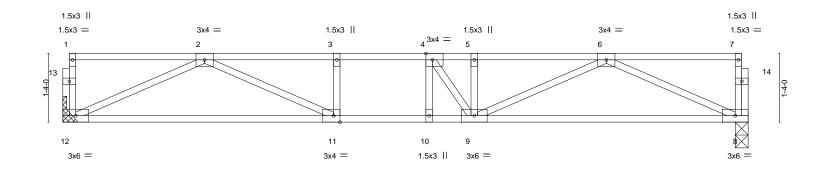
Job	Truss	Truss Type	Qty	Ply	Weaver / 70 Thomas Farm / Harnett
J1220-5727	ΕΛ	Floor	5	1	E14688959
31220-3727	14	1 1001	3	!	Job Reference (optional)

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:42:58 2020 Page 1 ID:lwPOH6hK8Jeptt6SXqQOJcyzm6C-lrIDqHYdkMb8?etiVuLEO47HTBeHwOHxM7xweRysWOx





0<sub>1</sub>1<sub>8</sub> Scale = 1:22.3



		6-7-12		1-3-4		5-4-8	
Plate Offse	ets (X,Y)	[4:0-1-8,Edge], [11:0-1-8,Edge]					
LOADING	(psf)	SPACING- 2-0-0	CSI.	DEFL.	in (loc) I/defl L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL 1.00	TC 0.31	Vert(LL) -0.	.10 9-10 >999 480	MT20	244/190
TCDL	10.0	Lumber DOL 1.00	BC 0.58	Vert(CT) -0.	.16 11-12 >953 360		
BCLL	0.0	Rep Stress Incr YES	WB 0.39	Horz(CT) 0	.03 8 n/a n/a		
BCDL	5.0	Code IRC2015/TPI2014	Matrix-S			Weight: 68 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD 2x4 SP No.1(flat) 2x4 SP No.1(flat)

BOT CHORD WFBS

2x4 SP No.3(flat)

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

13-3-8

except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 12=Mechanical, 8=0-3-0

Max Grav 12=711(LC 1), 8=711(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

2-3=-1908/0, 3-4=-1908/0, 4-5=-1897/0, 5-6=-1897/0 TOP CHORD **BOT CHORD** 11-12=0/1281, 10-11=0/1908, 9-10=0/1908, 8-9=0/1283

**WEBS** 6-8=-1407/0, 6-9=0/679, 5-9=-259/61, 2-12=-1405/0, 2-11=0/738, 4-9=-348/244

6-7-12

### NOTES-

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Plates checked for a plus or minus 1 degree rotation about its center.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.





818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Weaver / 70 Thomas Farm / Harnett
					E14688960
J1220-5727	F5	Floor	1	1	
					Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

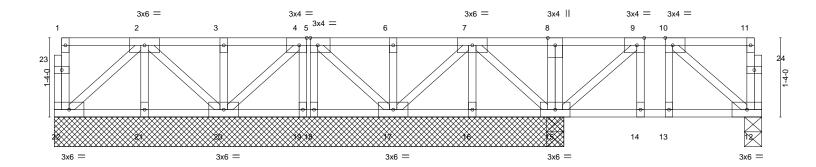
8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:42:59 2020 Page 1 ID:IwPOH6hK8Jeptt6SXqQOJcyzm6C-D2sb1dYFVgj?coSu3csTwHgUBa61fwL4angUAtysWOw

0-1-8 1-2-8  $H \leftarrow$ 

0-0-12

1-3-0 0<sub>7</sub>1<sub>7</sub>8 Scale = 1:19.4

11-11-0



%F, 11%E
: ב

4-3-6 4-11-6 5-7-12

LUMBER-TOP CHORD

2x4 SP No.1(flat)

2-11-0

WFBS 2x4 SP No.3(flat)

BOT CHORD 2x4 SP No.1(flat)

**BRACING-**

8-5-4

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

8-7-0

except end verticals.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

6-0-0 oc bracing: 16-17,15-16.

REACTIONS. All bearings 8-7-0 except (jt=length) 12=0-3-8.

(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 21, 16, 19, 18 except 12=323(LC 4), 20=365(LC 10), 17=376(LC 10), 15=581(LC 9), 15=564(LC 1)

4-3-0

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 8-15=-305/0, 6-17=-272/0, 3-20=-263/0, 9-15=-342/0, 10-12=-303/0 **WEBS** 

### NOTES-

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 1.5x3 MT20 unless otherwise indicated.
- 3) Plates checked for a plus or minus 1 degree rotation about its center.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) CAUTION, Do not erect truss backwards.

### LOAD CASE(S) Standard

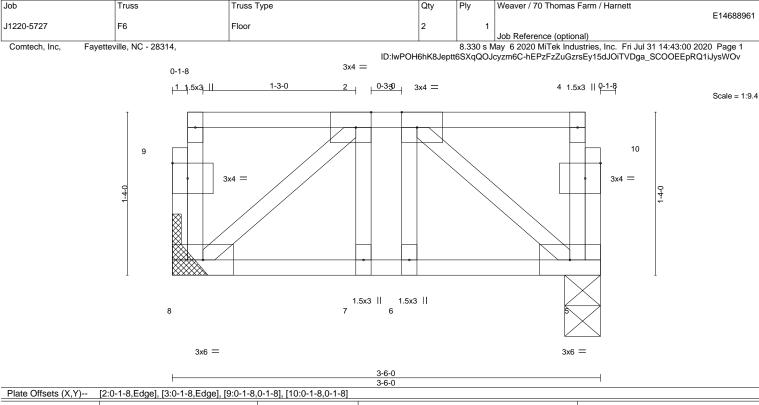
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (plf)

Vert: 12-22=-10, 1-11=-200



July 31,2020





LOADING TCLL	<b>3</b> (psf) 40.0	SPACING-	2-0-0 1.00	CSI.	0.08	DEFL. Vert(LL)	in -0.00	(loc) 7	l/defl >999	L/d 480	PLATES MT20	<b>GRIP</b> 244/190
TCDL BCLL	10.0	Lumber DOL Rep Stress Incr	1.00 YES	BC WB	0.04 0.04	Vert(CT) Horz(CT)	-0.00 0.00	7 5	>999 n/a	360 n/a	2	
BCDL	5.0	Code IRC2015/TPI2	2014	Matri	x-S	( ,					Weight: 24 lb	FT = 20%F, 11%E

**BRACING-**TOP CHORD

**BOT CHORD** 

LUMBER-TOP CHORD

2x4 SP No.1(flat) 2x4 SP No.1(flat)

BOT CHORD

**WEBS** 2x4 SP No.3(flat)

REACTIONS. (size) 8=Mechanical, 5=0-3-8 Max Grav 8=173(LC 1), 5=173(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Plates checked for a plus or minus 1 degree rotation about its center.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



Structural wood sheathing directly applied or 3-6-0 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.



Job Truss Truss Type Qty Ply Weaver / 70 Thomas Farm / Harnett E14688962 J1220-5727 F6A Floor Job Reference (optional) Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:43:01 2020 Page 1 Comtech, Inc. ID:lwPOH6hK8Jeptt6SXqQOJcyzm6C-9QzLSJaW1Hzjs6cHB0vx0ilqiOng7qwN259aElysWOu 3x4 = 0-3<del>3</del>0 3x4 = 4 1.5x3 || 0-1-8 Scale = 1:9.4 10 9 3x4 = 3x4 = 1.5x3 || 1.5x3 || 6 3x6 = 3x6 =

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [3:0-1-8,Edge], [9:0-1-8,0-1-8], [10:0-1-8,0-1-8]

	(psf) 40.0 10.0 0.0	SPACING- 2-0- Plate Grip DOL 1.0 Lumber DOL 1.0 Rep Stress Incr N	0 TC 0 BC	0.18 0.09 0.08	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.00 -0.00 0.00	(loc) 7-8 7-8 5	l/defl >999 >999 n/a	L/d 480 360 n/a	PLATES MT20	<b>GRIP</b> 244/190
BCDL	5.0	Code IRC2015/TPI2014			1.0.2(0.1)	0.00	ŭ	.,, \	.,,	Weight: 24 lb	FT = 20%F, 11%E

**BRACING-**

TOP CHORD

**BOT CHORD** 

3-6-0

LUMBER-

TOP CHORD 2x4 SP No.1(flat) 2x4 SP No.1(flat)

BOT CHORD

**WEBS** 2x4 SP No.3(flat)

REACTIONS. (size) 8=Mechanical, 5=0-3-8 Max Grav 8=329(LC 1), 5=329(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-252/0

**BOT CHORD** 7-8=0/252, 6-7=0/252, 5-6=0/252

**WEBS** 2-8=-322/0, 3-5=-322/0

### NOTES-

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Plates checked for a plus or minus 1 degree rotation about its center.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

### LOAD CASE(S) Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (plf)

Vert: 5-8=-10, 1-4=-200



Structural wood sheathing directly applied or 3-6-0 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.

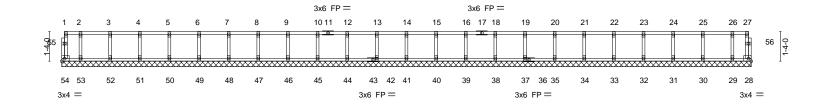


Job	Truss	Truss Type	Qty	Ply	Weaver / 70 Thomas Farm / Harnett
					E14688963
J1220-5727	KW1	GABLE	1	1	
					Job Reference (optional)

8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:43:02 2020 Page 1 ID:lwPOH6hK8Jeptt6SXqQOJcyzm6C-ddXkgfb8oa5aTGATkkQAYwl1Oo8FslsXHlv8nCysWOt

0-<u>1</u>-8

Scale = 1:51.8



 $\frac{0-10-2}{0-10-2} \cdot \frac{2-2-2}{1-4-0} + \frac{3-6-2}{1-4-0} + \frac{4-10-2}{1-4-0} + \frac{6-2-2}{1-4-0} + \frac{7-6-2}{1-4-0} + \frac{8-10-2}{1-4-0} + \frac{10-2-2}{1-4-0} + \frac{11-6-2}{1-4-0} + \frac{12-2-2}{1-4-0} + \frac{15-6-2}{1-4-0} + \frac{16-10-2}{1-4-0} + \frac{18-2-2}{1-4-0} + \frac{19-6-2}{1-4-0} + \frac{20-10-2}{1-4-0} + \frac{22-2-2}{1-4-0} + \frac{23-6-2}{24-10-2} + \frac{24-10-2}{26-2-2} + \frac{27-6-2}{24-10-2} + \frac{28-10-2}{26-2-2} + \frac{23-6-2}{24-10-2} + \frac{23-6-2}{24-10-2}$ 

LOADING	(psf)	SPACING- 2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL 1.00	TC 0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL 1.00	BC 0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr YES	WB 0.03	Horz(CT)	0.00	28	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014	Matrix-R						Weight: 135 lb	FT = 20%F, 11%E

LUMBER-**BRACING-**

TOP CHORD 2x4 SP No.1(flat) TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, 2x4 SP No.1(flat) BOT CHORD except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

2x4 SP No.3(flat) WFBS **OTHERS** 2x4 SP No.3(flat)

REACTIONS. All bearings 31-0-4.

(lb) - Max Grav All reactions 250 lb or less at joint(s) 54, 28, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 40, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

### NOTES-

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Plates checked for a plus or minus 1 degree rotation about its center.
- 3) Gable requires continuous bottom chord bearing.
- 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 5) Gable studs spaced at 1-4-0 oc.
- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



July 31,2020



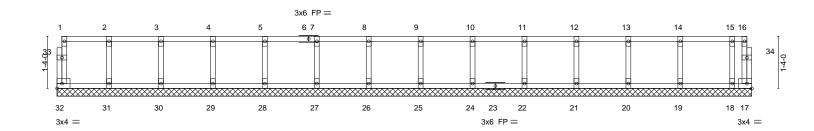
Job	Truss	Truss Type	Qty	Ply	Weaver / 70 Thomas Farm / Harnett
14000 5707	KINO	CARLE	_		E14688964
J1220-5727	KW2	GABLE	1	1	Joh Deference (entional)

Job Reference (optional) 8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:43:03 2020 Page 1 ID:lwPOH6hK8Jeptt6SXqQOJcyzm6C-6p56t?bmZuDR5PlgIRxP57qC7CULbl6gVPehJeysWOs

0-1\_8

Scale = 1:29.6





<del>1-4-0</del> 1-4-0			-8-0 8-0-0 -4-0 1-4-0	9-4-0 1-4-0 1-4-0	12-0-0	13-4-0	14-8-0 1-4-0 1-4-0	17-4-0 17-10-0 1-4-0 0-6-0
LOADING (psf) TCLL 40.0 TCDL 10.0 BCLL 0.0 BCDL 5.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2015/TPI2	2-0-0 1.00 1.00 YES 2014	CSI. TC 0.06 BC 0.02 WB 0.03 Matrix-R	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) n/a - n/a - 0.00 17	I/defl L/d n/a 999 n/a 999 n/a n/a	PLATES MT20 Weight: 80 lb	<b>GRIP</b> 244/190  FT = 20%F, 11%E

LUMBER-**BRACING-**

TOP CHORD 2x4 SP No.1(flat) TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, 2x4 SP No.1(flat) **BOT CHORD** except end verticals.

2x4 SP No.3(flat) **BOT CHORD** WFBS Rigid ceiling directly applied or 10-0-0 oc bracing. **OTHERS** 2x4 SP No.3(flat)

REACTIONS. All bearings 17-10-0.

(lb) - Max Grav All reactions 250 lb or less at joint(s) 32, 17, 31, 30, 29, 28, 27, 26, 25, 24, 22, 21, 20, 19, 18

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Plates checked for a plus or minus 1 degree rotation about its center.
- 3) Gable requires continuous bottom chord bearing.
- 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 5) Gable studs spaced at 1-4-0 oc.
- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

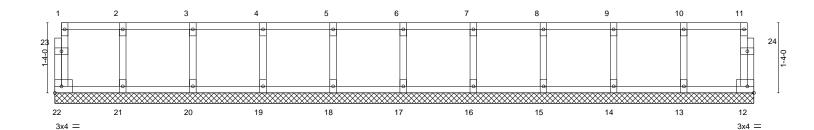


Job	Truss	Truss Type	Qty	Ply	Weaver / 70 Thomas Farm / Harnett
					E14688965
J1220-5727	KW4	GABLE	1	1	lab Deference (entional)

Job Reference (optional) 8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:43:04 2020 Page 1 ID:lwPOH6hK8Jeptt6SXqQOJcyzm6C-a?fU4KcOKCLIjZKss9SedLNNwbqiKCNqk2OFr4ysWOr

0<sub>1</sub>1<sub>8</sub>

0118 Scale = 1:21.9



1-3-8	2-7-8 3-11-8	5-3-8 6-7-8	7-11-8	9-3-8	10-7-8	11-11-8	13-3-8
1-3-8	1-4-0 1-4-0	1-4-0 1-4-0	1-4-0	1-4-0	1-4-0		1-4-0
LOADING         (psf)           TCLL         40.0           TCDL         10.0           BCLL         0.0           BCDL         5.0	SPACING- 2-0-0 Plate Grip DOL 1.00 Lumber DOL 1.00 Rep Stress Incr YES Code IRC2015/TPI2014	CSI. TC 0.06 BC 0.01 WB 0.03 Matrix-R	Vert(CT) r	in (loc) l/defl n/a - n/a n/a - n/a 00 12 n/a	L/d 999 999 n/a	PLATES MT20 Weight: 60 lb	<b>GRIP</b> 244/190 FT = 20%F, 11%E

LUMBER-**BRACING-**

TOP CHORD 2x4 SP No.1(flat) TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, 2x4 SP No.1(flat) **BOT CHORD** except end verticals.

2x4 SP No.3(flat) **BOT CHORD** WFBS Rigid ceiling directly applied or 10-0-0 oc bracing. **OTHERS** 2x4 SP No.3(flat)

REACTIONS. All bearings 13-3-8.

(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Plates checked for a plus or minus 1 degree rotation about its center.
- 3) Gable requires continuous bottom chord bearing.
- 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 5) Gable studs spaced at 1-4-0 oc.
- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information

available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road Edenton, NC 27932

Job Truss Truss Type Qty Ply Weaver / 70 Thomas Farm / Harnett E14688966 J1220-5727 KW6 GABLE Job Reference (optional) Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Fri Jul 31 14:43:05 2020 Page 1

Structural wood sheathing directly applied or 3-2-8 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.

ID:lwPOH6hK8Jeptt6SXqQOJcyzm6C-2CDslgd05VT8Kjv2QsztAYwXb?An3fKzzi7oNXysWOq 0-1-8 0-1-8 1 1.5x3 || 2 1.5x3 || 3 1.5x3 || Scale = 1:9.4 8 3x4 = 3x4 =

3x4 = 1.5x3 || 3x4 =3-2-8 1-7-4 1-7-4

5

Plate Off	Plate Offsets (X,Y) [7:0-1-8,0-1-8], [8:0-1-8,0-1-8]											
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code IRC2015/T	PI2014	Matri	x-R						Weight: 17 lb	FT = 20%F, 11%E

**BRACING-**TOP CHORD

BOT CHORD

LUMBER-TOP CHORD

2x4 SP No 1(flat) 2x4 SP No.1(flat)

BOT CHORD WFBS

2x4 SP No.3(flat) **OTHERS** 2x4 SP No.3(flat)

REACTIONS. (size) 6=3-2-8, 4=3-2-8, 5=3-2-8

Max Grav 6=86(LC 1), 4=149(LC 1), 5=230(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

6

### NOTES-

- 1) Plates checked for a plus or minus 1 degree rotation about its center.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

### LOAD CASE(S) Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (plf)

Vert: 4-6=-10, 1-3=-100 Concentrated Loads (lb)

Vert: 3=-81 9=-70



July 31,2020



## Symbols

# PLATE LOCATION AND ORIENTATION



offsets are indicated. Center plate on joint unless x, y and fully embed teeth Apply plates to both sides of truss Dimensions are in ft-in-sixteenths



edge of truss. plates 0- 1/16" from outside For 4 x 2 orientation, locate

connector plates. required direction of slots in This symbol indicates the

\* Plate location details available in MiTek 20/20 software or upon request.

### PLATE SIZE



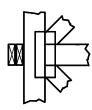
to slots. Second dimension is the length parallel to slots. width measured perpendicular The first dimension is the plate

# LATERAL BRACING LOCATION



by text in the bracing section of the output. Use T or I bracing if indicated. ndicated by symbol shown and/or

### **BEARING**



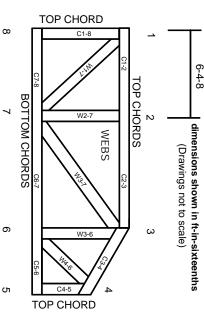
Min size shown is for crushing only number where bearings occur. reaction section indicates joint (supports) occur. Icons vary but Indicates location where bearings

## Industry Standards:

National Design Specification for Metal Building Component Safety Information. Installing & Bracing of Metal Plate Connected Wood Trusses. Guide to Good Practice for Handling Design Standard for Bracing. Plate Connected Wood Truss Construction.

DSB-89: ANSI/TPI1:

# Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988 ER-3907, ESR-2362, ESR-1397, ESR-3282

truss unless otherwise shown. Trusses are designed for wind loads in the plane of the

established by others. section 6.3 These truss designs rely on lumber values Lumber design values are in accordance with ANSI/TPI 1

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

# **General Safety Notes**

## Damage or Personal Injury Failure to Follow Could Cause Property

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Ņ Truss bracing must be designed by an engineer. For bracing should be considered. may require bracing, or alternative Tor I wide truss spacing, individual lateral braces themselves
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.

ω

designer, erection supervisor, property owner and all other interested parties. Provide copies of this truss design to the building

4

- Cut members to bear tightly against each other
- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.

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- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication

φ.

- 9 Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the camber for dead load deflection. responsibility of truss fabricator. General practice is to
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- 13. Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted
- Connections not shown are the responsibility of others
- Do not cut or alter truss member or plate without prior approval of an engineer
- 17. Install and load vertically unless indicated otherwise.
- 18. Use of green or treated lumber may pose unacceptable project engineer before use. environmental, health or performance risks. Consult with
- Review all portions of this design (front, back, words is not sufficient. and pictures) before use. Reviewing pictures alone
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- 21. The design does not take into account any dynamic or other loads other than those expressly stated.